SN <u>10/790,638</u>
Docket No. <u>S-100,565</u>
In Response to Office Action dated <u>November 6, 2007</u>

REMARKS

- 1. Applicant's arguments filed August 28, 2007 with respect to the rejection under 35 U.S.C. 112 were persuasive. The previous rejection of claims 1-7 under 35 U.S.C. 112 is withdrawn.
- 2. The declaration under 37 CFR 1.132 filed August 28, 2007 was sufficient to overcome the rejection of claims 1-7 based upon Swanson et al. (US Pubs 2004/0171175).
- 3. Claims 1-7 are now rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss et al. (US Published Application 2002/0064789) ("Weiss"), newly cited, in view of Swanson et al. (US 6,627,396) ("Swanson '396"), newly cited, or in view of Swanson et al. (US 6,893,814) ("Swanson '814") previously cited.
- 4. To support the rejection to claim 1, the Office Action argues:
- (i) Weiss discloses an apparatus in FIG. 1 that includes all of the elements of Applicant's claimed apparatus except for the sample comprising membrane vesicles including a trifunctional linker molecule including a fluorophore;
- (ii) Weiss's confocal microscope apparatus <u>would be suitable</u> for a sample with a fluorophore that can fluoresce in two specific wavelengths;
- (iii) Swanson discloses a sample comprising membrane vesicles including a trifunctional linker molecule including a fluorophore that can fluoresce at two specific wavelengths depending on attachment of a virus, therefore leading to an ultra-sensitive detection of the influenza virus; and therefore
- (v) it would have been obvious to one ordinary skill at the time the invention was made to use the apparatus of Weiss for detecting Swanson's sample in order to have an ultra-sensitive detection of the influenza virus.
- 5. Applicant respectfully disagrees with the Office Action's interpretation that it would be obvious to one of ordinary skill in the art to use Weiss's apparatus for

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detecting Swanson's sample. Although Weiss's apparatus would be suitable for detecting Swanson's sample, Weiss provides no motivation or suggestion for using the apparatus specifically with Swanson's sample of membrane vesicles that include a trifunctional linker molecule including a fluorophore. Surely there must be a great number of possible samples to choose from, and the Office Action has not provided any reason why one of average skill in the art would choose from such a great number a sample having membrane vesicles having a trifunctional linker molecule with a fluorophore. Why would one of ordinary skill in the art specifically choose membrane vesicles that have a trifunctional linker molecule with a fluorophore? When looking at the Weiss patent as a whole, Weiss's teachings are largely about an apparatus with samples of TRANSFLUOSPHERES[™] (TFSs) or samples of fluorescent semiconducting nanocrystal quantum dots (NCs). Weiss mentions in paragraph [0132] that biological applications are envisioned, specifically that functionalized TFSs and NCs would allow ultrahigh-resolution mapping of genes and DNA binding proteins. Weiss, however, stops there. The mere mention of biological applications, and the brief specific suggestion of using functionalized TFSs and NCs does not rise to the level of suggesting membrane vesicles with trifunctional linker molecules having a fluorophore. Thus, Applicant submits that one of average skill would not combine Weiss's apparatus with Swanson's sample of membrane vesicles with trifunctional linker molecule having a fluorophore. For these reasons, Applicant submits that claim 1 is not obvious under 35 U.S.C. 103(a) over Weiss in view of either Swanson '396 or Swanson '814. Therefore, Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. 103(a) over Weiss in view of Swanson '396, or in the alternative in view of Swanson '814, be withdrawn.

6. Claims 2-7 depend from claim 1. For the reasons given above, claim 1 is not obvious to one of ordinary skill in the art. For the same reasons, claims 2-7 are also not obvious to one of ordinary skill in the art. Therefore, Applicant respectfully requests that the rejections of claims 2-7 under 35 U.S.C. 103(a) over Weiss in view of Swanson '396, or in the alternative in view of Swanson '814, be withdrawn.

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7. Applicant respectfully requests that this response be entered into the present patent application. For the reasons set forth above, Applicant believe that all currently pending claims are in condition for allowance, and such action at an early date is earnestly solicited. No new matter has been added by the above changes. Reexamination and reconsideration are respectfully requested.

Respectfully submitted,

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